

National Geological and Geophysical Data Preservation Program

Final Report, March 22, 2013

Florida Geological Survey
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This report is for the period July 1, 2011 through December 31, 2012

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Executive Summary

The project to scan legacy paper geophysical logs of Florida oil and gas wells along with previously inventoried geophysical logs of wells identified in the metadata of the FGS project funder under NGGDPP in fiscal year 2007 was completed. Over 6,400 existing paper logs containing 7,265 geophysical log curves were converted to digital format to preserve and prevent loss of high value information and provide efficient, cost effective access by professional and public entities.

Five of the six project objectives were either met or exceeded. The objective to develop and implement access coding for web-based query of existing FGS wells database for geophysical log images was not accomplished due to insufficient resources to accomplish this task; however, the image library has been established (Project objective 4) and is available. Efforts to link images as an additional item for FGS's existing public access application will continue.

The metadata consisting of FGS well number, location, type of geophysical log, document condition and grading of scanned images for over 88% of the geophysical logs have been uploaded to the National Catalog. The remainder is anticipated mid-April after additional data cleanup has been done.

What follows this Executive Summary is a list of the work activities of the project since its inception in July 1, 2011 and its conclusion in December 2012.

Summary of All Work Activities Under This Project

- Initial preservation workflow diagrams completed in July, 2011
- Additional work by database programmer was completed on the database to improve front end data entry and linkages among the data tables speeding up scanning and data entry.
- Initial plan to use Neuralog scanner located with another organizational unit across town within the Department was revised due to the scanner's tendency to degrade or tear sensitive paper documents on file. Subsequent work during this period on the Neuralog scanner provided scanning capability for thin/sensitive paper documents without degradation or tears. This modification increased the volume of scans conducted during the period. An HP large format document scanner located with the FGS at its Gunter Building location was and continues to be used to accomplish the task for most paper types. The challenge remains, however, for tissue thin logs: this scanner

tears or rends the document through its repositioning for permanent scan cycle. More robust papers tolerate the automatic scanning and rescanning cycles. Subsequent work by technical staff discovered program sequences in the HP large format scanner software that allows slower scan rate and document feed as well as setting up the document for a single pass as opposed to default operation of multiple passes exposing thin paper documents to greater stresses and tears.

- A no cost extension was given in April 2012 for the grant with a new ending date of 12/31/2012. Extension allowed complete use of awarded funds and achieved the goals and objectives of the grant in spite of an unexpected change in OPS staffing.
- As mentioned in the report for activity ended December 31, 2011, document condition was determined and recorded in the database for 1604 geophysical logs for 1032 Oil and Gas wells and then scanned at 300 dpi. Similarly, document condition was determined and recorded in database for 2072 geophysical logs for 1607 non- Oil and Gas wells and then scanned at 300 dpi for a total of 3,676 scanned geophysical logs.
- For the period from January 1, 2012 to June 30, 2012, document condition was determined and recorded in database format for 1764 geophysical logs for 810 non- Oil and Gas wells and then scanned at 300 dpi. No additional Oil and Gas scans were conducted during this period as the scans were completed in the prior period. Total logs scanned since July 2011 through June 30, 2012 now total 5440 scanned geophysical logs from 3449 wells. For the period of July 1, 2012 through December 31, 2012, an additional 1825 log curves were scanned bringing the total scanned to 7,265 geophysical log curves. This included a “clean-up” effort that reduced the initial number of geophysical log curves recorded in the database from over 11,000 to 7,265. The discrepancy was due to record duplications, misnamed files or incomplete data fields which were addressed resulting in a final of 7,265 geophysical log curves.
- As mentioned in our earlier status reports, our Archivist left in December 2011 for permanent library position.
- Replacement for the Archivist was employed as of March 16th, 2012. In the latter part of May, an additional person was employed to increase the scanning and metadata recording.
- The first upload of metadata for these geophysical log documents was anticipated in February 2012. However, we were informed by Rick Brown of the USGS, Core Science Systems in Rolla, Missouri, that they were transitioning from one system *ScienceBase Model 1* to *ScienceBase Model 2* in the next couple of months. They believed that the task would be somewhat easier under the newer system and that we should wait until April when the new system was online.
- In April, USGS, Core Science Systems was not ready for metadata upload; as of June and later October 2012 they still were not ready. Late in November 2012, Core Science Systems were available for upload.
- After technical advice from Ms. Natalie Latysh of U.S.G.S., the initial upload took place on 2/8/2013 to <my.usgs.gov> of 4390 records of geophysical log traces. This was followed by a subsequent upload in early March of 2,063 additional records for a total of 6453 records. Upload of remaining records bringing the total to 7,265 records is anticipated in late March or early April 2013 after full data cleanup is completed.

- Rather than adapt an open-source application to manage the image library as was originally envisioned, we are designing an add-on module to an existing MySQL wells database. The advantage is that we will keep a single database which contains all characteristics and associated files with each well within the database and simply add the image library to which the database can point. Currently, this database is available to the public for searches and will provide information regarding the images associated with individual wells as outlined in the current grant.